



**State of Louisiana
Coastal Protection and Restoration Authority**

2017 Annual Inspection Report

for

Barataria Bay Waterway East Shoreline Protection

State Project Number BA-26
Priority Project List 6

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Jefferson Parish

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**2017 Annual Inspection Report
for
Barataria Bay Waterway East Bank Protection
(BA-26)**

Table of Contents

I. Introduction.....	1
II. Project Description and History.....	1
III. Inspection Purpose and Procedures.....	1
IV. Inspection Results	2
V. Conclusions.....	2
VI. Recommendations.....	2
Immediate Repairs	2
Programmed Maintenance	2

Appendices

- Appendix A Project Features Map
- Appendix B Photographs
- Appendix C Three Year Budget Projections
- Appendix D Field Inspection Form



I. Introduction

The Barataria Bay Waterway East Bank Protection Project (BA-26) encompasses 2,790 acres (880 ha) of brackish marsh and open water habitat on the east bank of the Barataria Bay Waterway located in Jefferson Parish, Louisiana approximately 1.5 miles south of Lafitte. The Project is bounded by the Barataria Bay Waterway to the west, various canals to the east and south, and The Pen and Bayou Dupont to the north (see Project Features Map).

II. Project Description and History

The Barataria Bay Waterway East Bank Protection Project includes approximately 17,100 linear feet (3.2 miles) of foreshore rock dike bank line protection and an earthen hydrologic barrier created from dredged material from the Barataria Bay Waterway Channel placed to the East along the rock dike within the project area. The rock structure was constructed with a synthetic clay core to reduce its overall weight. The clay material was encapsulated in geotextile bags and placed along the centerline of the dike. The dike is intended to re-establish the eastern bank of the Barataria Bay Waterway and to protect the adjacent marsh from unnatural water exchange and subsequent erosion which is exacerbated by wakes from vessel traffic on the waterway.

Project construction began on February 19, 2001, and was completed on May 21, 2001. Project life is estimated to be 20 years. Annual project inspections are planned.

In December 2005, a contract to raise these structures was awarded and resulted in the placement of 17,417 tons of rock riprap on the settled sections of the structure. The work was completed on January 24, 2006.

III. Inspection Purpose and Procedures

The purpose of the annual inspection of the Barataria Bay Waterway East Bank Protection Project (BA-26) is to evaluate the constructed project features to identify any deficiencies and to prepare a report detailing the condition of project features and recommended corrective actions. Should it be determined that corrective actions are needed, CPRA shall provide a detailed cost estimate for engineering, design, supervision, inspection, and construction contingencies, and an assessment of the urgency of such repairs (O&M Plan August 9, 2002). The annual inspection report also contains a summary of maintenance projects and an estimated projected budget for the upcoming three (3) years for operation, maintenance and rehabilitation. The three (3) year projected operation and maintenance budget is shown in Appendix C. A summary of past operation and maintenance events completed on the project is outlined in Section II.

An inspection of the Barataria Bay Waterway East Bank Protection Project (BA-26) was held on November 2, 2017, by Clay Worley and Barry Richard of CPRA, along with Quin

Kinler of NRCS. Photographs of that inspection are included in Appendix B of this report.

IV. Inspection Results

Overall, the rock shoreline structure was in good condition (Photo #1). Some portions of the rock structure adjacent to and south of the BA-41 marsh creation area have experienced settlement (Photos #2 & #3). Accretion and vegetation were observed behind the rock structure at the northern end of the project (Photo #4).

V. Conclusions

The Barataria Bay Waterway East Protection Project (BA-26) is performing adequately. The rock dike is protecting the existing marsh as designed. Settlement has been noted in some areas which may require corrective action in the near future.

VI. Recommendations

To determine if a maintenance rock lift is warranted and to help determine a path forward involving end of life, CPRA recommends performing a professional survey to assess and document the top-of-rock elevations in the areas which appear to be experiencing settlement. Additional recommendations will be presented to NRCS following the collection and assessment of survey data.

Immediate Repairs

- Perform a survey of the rock dike to determine their status as we move toward the End of Project Life.

Programmed Maintenance

- CPRA will perform a survey check of the low rock areas.

Appendix A

Project Features Map



Barataria Bay Waterway East Side Shoreline Protection (BA-26)



Shoreline Protection



Project Boundary



0.5 0 0.5 Miles

0.5 0 0.5 Kilometers

Map Produced By:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station

Background Imagery:
1998 Digital Orthophoto Quarter Quadrangle

Map Date: August 23, 2002
Map ID: 2002-11-719
Data accurate as of: August 23, 2002

Appendix B

Photographs



Photo #1 – Shoreline protection rock structure



Photo # 2 – Settlement noted in open water area



Photo # 3 – Settlement noted west of BA-41 marsh creation area



Photo # 4 – Accretion & vegetation behind the rock structure

Appendix C

Three Year Budget Projection

Barataria Bay Waterway East Bank Protection (BA-26)
Federal Sponsor: NRCS
Construction Completed : 5/2001
PPL 6

Current Approved O&M Budget	Year 0 FY02	Year - 1 FY03	Year -2 FY04	Year -3 FY05	Year -4 FY06	Year -5 FY07	Year -6 FY08	Year -7 FY09	Year -8 FY10	Year -9 FY11	Year -10 FY12	Year -11 FY13	Year -12 FY14	Year -13 FY15	Year -14 FY16	Year -15 FY17	Year -16 FY18	Year -17 FY19	Year -18 FY20	Year -19 FY21	Project Life Budget
State O&M																					\$1,228,500
Corps Admin																					\$0
Federal S&A																					\$0
Total																					\$1,228,500

Projected O&M Expenditures					Remaining Project Life				
Maintenance Inspection					\$4,378	\$4,492	\$4,609	\$4,728	\$18,207
General Maintenance									\$0
Surveys					\$80,000				\$80,000
Sign Replacement									\$0
Federal S&A									\$0
Maintenance/Rehabilitation									\$0
E&D									\$0
Construction									\$0
Construction Oversight									\$0
Total					\$84,378	\$4,492	\$4,609	\$4,728	\$98,207

O&M Expenditures from COE Lana Report	\$782,079	Approved O&M Budget	\$1,228,500	Current Project Life Budget	\$1,228,500
State O&M Expenditures not submitted for in-kind credit	\$0	Less Estimated Expenditures	\$844,152	Total Projected Project Life Budget	\$942,359
Federal Sponsor MIPRs (if applicable)	\$62,073	Remaining Available O&M Budget	\$384,348	Project Life Budget Surplus (Shortfall)	\$286,141
Total Estimated O&M Expenditures (as of October 2017)	\$844,152				

Appendix D

Field Inspection Form

MAINTENANCE INSPECTION REPORT CHECK SHEET

Project No. / Name: **BA-26 Barataria Waterway (East) Shoreline Protection**

Date of Inspection: 11/2/2017

Time: 10:30 am

Structure No. n/a

Inspector(s): Kinler, Richard, Worley

Structure Description: Foreshore Rock Dike

Water Level

Inside: N/A

Outside: 1.50'

Type of Inspection: Annual

Weather Conditions: Mostly sunny, light wind

Item	Condition	Physical Damage	Corrosion	Photo #	Observations and Remarks
Foreshore Rock Dike	Good	None	N/A	1, 2, 3, 4	Settlement noted at some locations. Recommend surveying of low areas to determine if rock lift is required and to determine path forward involving end of life.
Settlement Plates	Good	None	None		